Service Talk

FROM

TELEVISION RECEIVER PRODUCT SERVICE

ELECTRONICS PARK SYRACUSE, N. Y.

MAY 1963 VOL. 5, NO. 5

SOMETHING NEW

Once in the proverbial "blue moon" something really new happens in the Television business. General Electric has again become the leader in introducing a truly Personal Portable.

The new 11-Inch Personal Portable weighs only 13 pounds, but performs like a "heavyweight." A choice of several models is available, all utilizing the SY Chassis, which features a new method of construction. The "SY" brings you once again, the famous General Electric Reliability, Performance and Serviceability.

Your General Electric Television Receiver Distributor will soon be conducting service meetings featuring the SY Chassis. If you are not on his mailing list, be sure to contact him for meeting dates in your area.

Your Plan E mailing this month contains superseding Index Pages to bring your "W" and "X" Line Service Manual up to date. Replace your outdated Index with these sheets, which list all models.

The new "LY Chassis" Tab is furnished this month. Replace your original with this new one which matches other tabs to be issued.

This mailing includes information on the "MY" and "SY" Chassis just being introduced. These pages and tabs are arranged in order and you need only place them in your binder, following the last LY Chassis page (LY4-1).

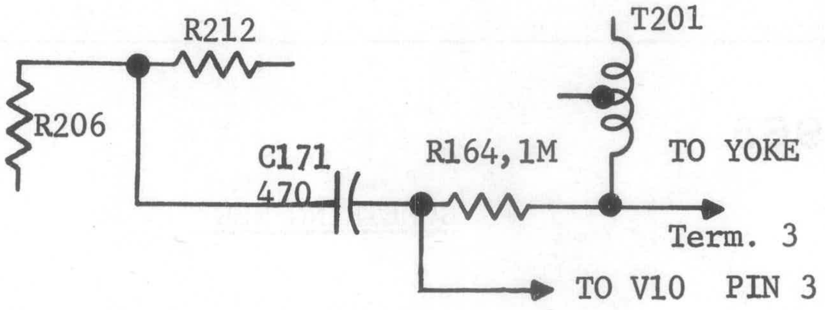
IMPORTANT SERVICE INFORMATION

As is frequently the case, when a new chassis is introduced, some last minute improvements were developed which occured after preparation of the Service Information. Please make the following additions and changes to your "SY" pages as indicated.

(over)

PAGE SY3-7 SCHEMATIC DIAGRAM

1. Add circuit change as follows:



2. Delete C408.

3. Change C407 from 10μμf to 22μμf.
   Change C411 from 10μμf to 22μμf.

4. Reverse filament pin numbers on V9 (1X2B). 2,5,8 should be 1,4,6,9 and 1,4,6,9 should be 2,5,8. (R270 is actually a resistance wire filament winding of the HV transformer.)

PAGE SY3-8 CHASSIS REPLACEMENT PARTS LIST

Common Resistors

Add:	R164	1 Meg., 1/2W, 10%	

Resistors - Special

Add:	ET65X32	R270	2.4 ohm resistance wire for V9 filament winding on T251

Capacitors - Disc Ceramic

Delete:	C408	800μμf, 20%, 500V	
Add:	ET22X90	C171	470μμf, 20%, 500V
	ET22X151	C400	470μμf, GMV, 1400V, HiK
	ET118X422	C407	22μμf, 5%, 500V, N750
		C411	22μμf, 5%, 500V, N750

MY CHASSIS SCHEMATIC

Change 6GE5 filament connections from pins 2 and 7 to 12 and 1 respectively.

Service Talk

FROM
TELEVISION RECEIVER PRODUCT SERVICE
ELECTRONICS PARK SYRACUSE, N. Y.

JULY- AUGUST 1963 VOL.5, NO.7

SERVICE MANUAL PAGES

Your service plan mailing this month contains information for four different chassis. Be sure to file these sheets at once as instructed below.

CY Chassis

All pages and separator tab are in order and should be placed in your binder between the last LY page and the MY tab.

LY Chassis

Insert the supersedure sheets LY1-1, LY1-3, LY1-5 and LY3-5 in place of the same numbered sheets issued previously. Destroy the old sheets.

(over)

CONVERGENCE CHART

General Electric - CY Chassis

A convergence setup chart for the CY Chassis color receiver is shown on the reverse side and is used in exactly the same manner as the previous chart for the CW and CX Chassis.

Each of the small rectangles on this chart shows the portion of the raster affected by the convergence board control which is located in that position. The convergence steps are numbered to show the correct sequence of adjustments.

MY Chassis

Insert the tuner sheets between pages MY2-6 and MY3-1.

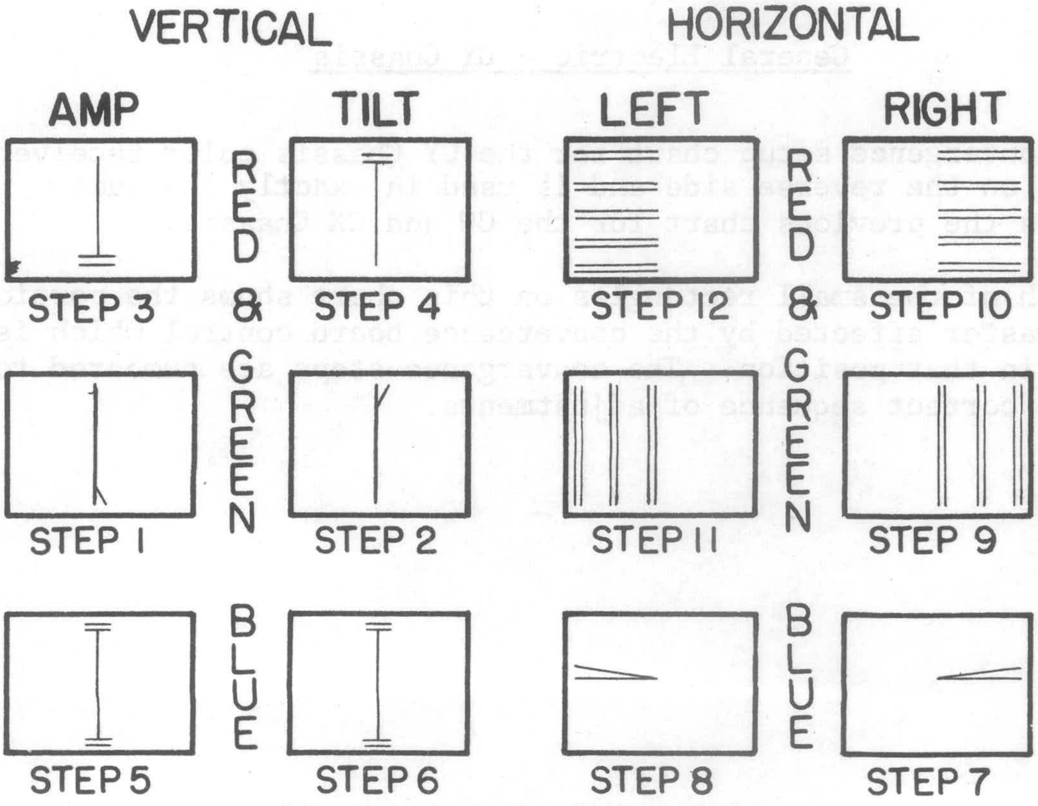
SY Chassis

Insert the two VHF tuner sheets between pages SY2-8 and SY3-1

THE HOT LIST

Any information concerning the following stolen receiver should be referred to the dealer listed.

Model M500XRD Ser. #252331 Crawford Furniture Co.
Pikerville, N. C.



Service Talk

FROM

TELEVISION RECEIVER PRODUCT SERVICE

ELECTRONICS PARK SYRACUSE, N. Y.

SEPTEMBER 1963 VOL.5, NO.7

UHF CONVERSION - TURRET TUNERS

Although turret type tuners using UHF strips no longer appear in new receivers, there are thousands in use by customers. A great many of these tuners may require the installation of one or more UHF strips in the future, as UHF service is expanded to new areas. Therefore, a few hints and precautions may be useful to those of you who may be experiencing UHF for the first time.

In the majority of General Electric receivers which have used Standard Kollsman turret tuners, only the back half of the cabinet need be removed to gain access to the tuner. The turret type tuners are equipped with a split shield, only one half of which is removed to install strips, since the turret rotates to any desired position. In removing the tuner half shield, care should be taken not to press the release in too far. The mixer plate coil is under the top edge of this shield and may be damaged when the cover is pressed in and slid out from the retaining slot.

Up to four UHF strips may be installed in a turret tuner, one in the blank position and three in place of VHF channel strips which are not used in the area. A spacing of at least two channel positions should be maintained between UHF strips, to prevent interaction. It is also advisable to remove the VHF strips on either side of the UHF position to permit installing the UHF strip without damage. In handling and installing the UHF strips, care must be taken not to bind or change the physical position of any components, or the performance of the strip may be affected. When all UHF strips are in position the adjoining VHF strips may be re-installed. Installation and adjustment instructions are packed with each UHF strip.

The correct type of UHF strip must be used with each tuner. In ordering be sure to specify both the type and UHF channel number. Where cross modulation and overload problems have been encountered on certain channels, special dual pre-selector strips are available at slightly higher prices. These should be used for the tuners specified in areas where the problem exists. The various type numbers of strips for General Electric tuners are as follows:

(over)

UHF Strip Type GW4, (prefixed by channel number) used with tuners:

ET86X103
ET86X124
ET86X126
ET86X129
ET86X130
ET86X138
ET86X166
ET86X167

Regular UHF Strip Type P4 (prefixed by channel number) and dual pre-selector strips type P4A (prefixed by channel number) for channels 16, 21, 22, 28, 31, 33 and 43 are used with tuners:

ET86X156
ET86X158
ET86X159
ET86X160
ET86X162
ET86X164
ET86X165

SERVICE MANUAL PAGES

Your service plan mailing this month contains information for five different chassis. Be sure to file these sheets at once as instructed below.

The following sheets should be inserted in the 1964 "Y" Line Service Manual.

AY Chassis

Sheets AY1-43 and AY1-44 follow Page AY1-42.

LY Chassis

Supersedure Sheet LY4-1. Destroy the old sheet.

MY Chassis

Sheets MY4-1, MY4-3, MY4-5, MY4-7 and MY4-9 follow Page MY3-10.

SY Chassis

Sheets SY1-5 and SY1-7 follow Page SY1-2. Sheets SY4-1 and SY4-3 follow Page SY3-8. Supersedure Sheet SY3-7. Destroy the old page.

Due to a schedule change, Sheet SY1-3 will appear in the October Plan E Mailing.

The following sheets should be inserted in the 1963 "X" Line Service Manual.

CX Chassis

Supersedure Sheet C105 in the "C" section. Destroy the old sheet.

MXT Chassis

Sheets A127 and A129 follow Page A126 in the "A" section. Supersedure Sheets A105, A123 and A125. Destroy the old sheets.

Service Talk

FROM
TELEVISION RECEIVER PRODUCT SERVICE
ELECTRONICS PARK SYRACUSE, N. Y.

OCTOBER 1963 VOL. 5, NO. 9

HORIZONTAL DEFLECTION ALIGNMENT IN COLOR TELEVISION RECEIVERS

A pilot light bulb is not a good substitute for a meter!

The horizontal efficiency coil in the CW, CX and CY chassis of General Electric color television receivers is adjusted to attain a specific horizontal amplifier cathode current. The cathode current is specified in the Service Manual and is observed on a milliameter inserted in series with the cathode to ground connection.

Some service technicians have been substituting a pilot bulb as an indicating device, placing it between the plate cap and connector on the top of the horizontal amplifier tube. Using this method, the horizontal efficiency coil has been adjusted for minimum brilliance from the bulb to indicate minimum plate current.

THE BULB METHOD IS NOT RECOMMENDED for the following reasons:

1. Minimum plate current does not necessarily mean maximum output from a screen grid tube. Maximum output from the horizontal amplifier tube can be attained only by adjusting the horizontal efficiency coil for the horizontal amplifier cathode current specified in the Service Manual. Of course maximum output should be produced to attain maximum efficiency from the horizontal system (boost, brightness, focus, sweep).

2. The eye cannot see small changes in brightness from the pilot bulb due to a change in current of a few milliamperes. Therefore critical adjustments which can be observed on the milliameter cannot be seen with the pilot bulb.

3. If the pilot bulb represents any significant capacity, it could result in detuning of the flyback transformer when the bulb is removed from the circuit.

Always follow the instructions in the Service Manual for maximum receiver performance and customer satisfaction.

(over)

SERVICE MANUAL PAGES

Your television service plan mailing this month contains an Index Tab, a Foreword, the Nomenclature for Television Receivers and an Index, plus service information for five different chassis. Be sure to file these sheets at once as instructed below. Destroy all old sheets which have been superseded by new sheets.

The following sheets should be inserted in the 1964 "Y" Line Service Manual.

Insert the Index Tab, Foreword and Nomenclature - Pages 1 and 2, and the Index-Pages 3 and 4 in the front of the Service Manual.

CY Chassis	Supersedure sheet CY3-23.
LY Chassis	Sheets LY2-11, LY2-13, LY2-15 follow Page LY2-10.
QY Chassis	Insert QY Tab after Page MY4-10. Following the QY Tab, insert in order sheets QY1-1, QY2-1, QY2-3, QY2-5, QY2-7, QY2-9, QY3-1, QY3-3, QY3-5, QY3-7 and QY3-9.
SY Chassis	Supersedure sheet SY1-1. Sheet SY1-3 follows Page SY1-2.

The following sheets should be inserted in the 1963 "X" Line Service Manual.

MX/MXT Chassis	Supersedure sheets A53, A57, A59, A61, A65, A67, A71, A83, A117, B69 and B71. Sheet B85 follows Page B84.

THE HOT LIST

We have been notified that the following receivers are presumed to be stolen. If you should locate one, please contact the individual listed.

Model	Serial No.	Contact
CBM602WVY CBM602WVY	535333 535556	Mr. B.I. Bridgewater General Electric Co. 8401 Carpenter Freeway Dallas 7, Texas
M502XVY	975689	McDonald Refrigeration 307 W. Bremer Avenue Waverly, Iowa. 50677

Erratum: September 1963 Service Talk was incorrectly numbered Vol.5, No.7. Please change this to Vol.5, No.8.

Service Talk

FROM
TELEVISION RECEIVER PRODUCT SERVICE
ELECTRONICS PARK SYRACUSE, N. Y.

NOVEMBER 1963 VOL. 5, NO. 10

THE PINK PAGE

A Pink Tab Page has been added to the AY Service Manual this month. It is titled "AY CABINET AND APPEARANCE REPLACEMENT PARTS CHANGES." File this Pink Page directly behind the last AY model sheet and refer to it for the latest changes each time that you are selecting a Cabinet and Appearance Item Replacement Part for AY models. You don't have to read the entire page to do this. Just look at the left side of the Pink Page to see if there is any item in which you are interested, such as "UHF TUNER" or"UHF KNOBS." A description of the change appears to the right of the subject.

Why did we do this? To speed up the flow of information to you. When we receive parts information too late to incorporate in the Service Manual pages for the current Plan E mailing, it must be held up until the next mailing. The Pink Page gets the information to you pronto. For instance, to incorporate the Pink Page changes into the Service Manual this month would require revising 21 model sheets and printing 210,000 copies. This could not have been done in time for the Plan E mailing. Instead, the information was consolidated on the Pink Page, 10,000 copies printed---and you have it. Of course the Pink Page changes will be incorporated into the regular Service Manual pages at a later date.

Let us know how you like this new Plan E service.

SY CHASSIS CIRCUIT BOARDS AND TUBE CHANGE

Latest production SY chassis use a 33GY7 for V8, the horizontal driver-damper compactron, in place of the 33GT7 used previously.

THESE TUBES ARE NOT INTERCHANGEABLE. The 33GY7 has the screen connected to pin 11. The 33GT7 has its screen connected to pin 10. Replace defective tubes only with those shown on the tube label attached to the cabinet, or damage may result.

(over)

During production the copper patterns on the I-F and Sweep etched circuit boards were revised. The major revision was changing the connection of the boost capacitor C261 from B+ to ground. C261 is still physically in the same place. The other revisions consisted of minor changes in the shape of the "islands" so that the locations of some components on the board may be shifted a fraction of an inch.

CORRECTION TO SERVICE MANUAL INFORMATION CX CHASSIS.

Page C111 under "COILS & TRANSFORMERS."

Change: T105 TRANSFORMER-POWER
from Cat. No. ET86X77
to Cat. No. ET88X77

The Service Manual page will not be re-issued at this time.

SERVICE MANUAL PAGES

File the new sheets at once as instructed below. Destroy all old sheets which have been superseded by new sheets.

Insert the following sheets in the "Y" line Service Manual.

AY CHASSIS	Sheets AY3-5 and the Pink Tab Page.
CY CHASSIS	Supersedure sheets CY3-1 and CY3-23.
LY CHASSIS	Sheets LY2-17 and LY2-19.
MY CHASSIS	Supersedure sheets MY3-3, MY3-5 and MY3-7.
SY CHASSIS	Supersedure sheets SY1-5, SY1-7, SY2-11, SY3-1, SY3-7.

Insert the following sheets in the "W" line Service Manual.

MW CHASSIS	Supersedure sheets A21, A23, B41 and D9.

Service Talk

FROM

TELEVISION RECEIVER PRODUCT SERVICE

ELECTRONICS PARK SYRACUSE, N. Y.

DECEMBER 1963 VOL.5, NO.11

SERVICING HINTS - YOKES

When you are faced with a service problem which appears to be due to a yoke failure, check the yoke before condemning it. A little extra checking will frequently save you the time and expense of replacement.

The most obvious test is to check for correct resistance of the winding which is in question, after isolating it from the balance of the circuit. Usually, individual resistances will be shown in the service notes. Any wide deviation from the published values should be investigated, although shorted turns can rarely be determined in this manner.

Of course, the most common type of yoke failure is found in the horizontal portion. The symptoms may be loss of brightness, horizontal keystoning, or complete loss of high voltage.

In yokes using series connected coils, an open circuit may occur due to wire breakage at any of the terminal lugs. This is easily determined by a resistance check or visual inspection. If the lead is broken short, it should be spliced before attempting to resolder to the lug. You should also check for internal shorts between horizontal and vertical windings, although in some cases the breakdown occurs only under high pulse voltages.

Failure of the small capacitor located across one section of the horizontal winding is frequently mistaken for a shorted winding, since it also causes loss of brightness and keystoning. In some cases the capacitor will also exhibit a burned spot. Be sure to replace only with the exact part specified in the service manual. These capacitors are critical in value, usually having about a 2KV rating and an N2200 temperature coefficient.

Parallel connected windings may become broken at the lugs, thus opening one or both coils. Again, a resistance check will determine this problem and the repair is simple.

(over)

Due to their nature and the lower peak voltages present, vertical windings rarely cause problems. When a vertical problem does exist, the windings should be checked for resistance and damage at the lugs. In saddle wound yokes, resistors of about 1000 ohms are located across the coils preventing an open coil from showing as a complete open circuit.

When you are handling or repairing any yoke you should always observe the following precautions:

1. Do not change the dress of windings or permit any leads to cross over others.

2. Handle yokes with care to prevent movement or misplacement of turns when passing over the tube base and neck.

3. Be sure that leads to the yoke are kept away from tubes, hot resistors, or any points likely to induce corona from the yoke leads.

SERVICE MANUAL PAGES

The Service Manual sheets which you have received should be filed at once as instructed below. Destroy all old sheets which have been superseded by new sheets.

Insert the following sheets in the "Y" line Service Manual.

AY CHASSIS	Supersedure sheet AY2-5 and new sheets AY2-11, AY2-13 and AY2-15.
MY CHASSIS	Supersedure sheets MY2-5, MY3-1, MY3-9. New sheets MY2-19, MY2-21, MY2-23, MY2-25.

HOLIDAY GREETINGS

The folks in Television Product Service wish you a very Merry Christmas and a Happy and Prosperous New Year.

Doug Wexler

P. D. Wexler
Manager - Product Service

Service Talk

FROM
TELEVISION RECEIVER PRODUCT SERVICE
ELECTRONICS PARK SYRACUSE, N. Y.

JANUARY 1964 VOL. 6, NO. 1

YOUR 1964 SERVICE MANUAL SUBSCRIPTION PLAN

Have you renewed your Television Console-Phonograph Service Manual subscription for 1964? If not, we urge you to fill out the flyer coupon which you received in your November mail and send it with your remittance to your General Electric Television Receiver Distributor. Do it today so that you will not miss any of the valuable material to come.

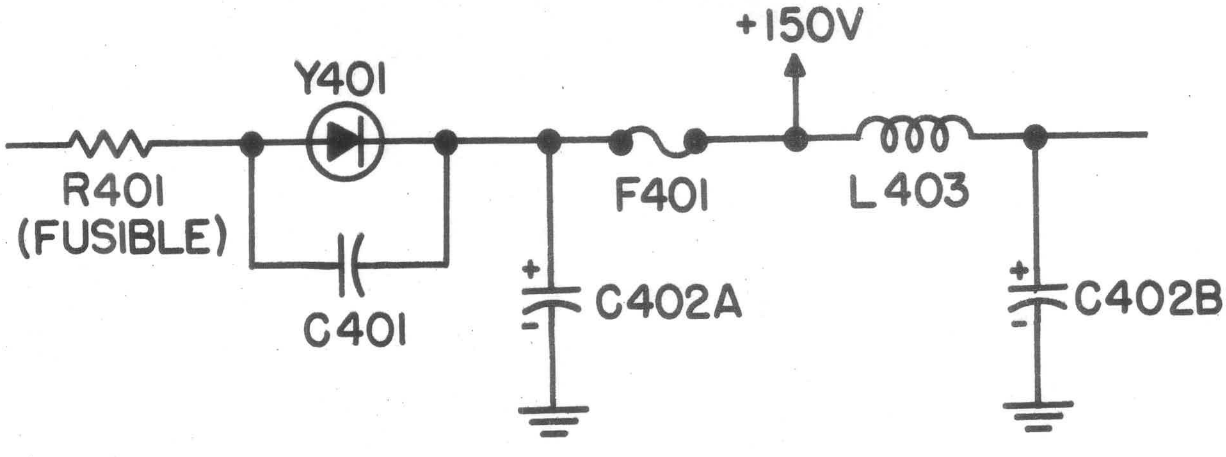
All 1964 subscriptions will include a loose-leaf binder for forthcoming TV service manuals. The binder will be mailed to you in February since our new subscription mailing list will not be completed until mid-January.

FUSE ADDED TO THE SY CHASSIS

A fuse, F401, has been added to the B+ power supply in the 11 inch portable SY Chassis. The fuse is between C402A and L403 as illustrated below and is included in all chassis beginning with chassis code 347.

F401 is rated 0.5 amp. and is a fast-blo pigtail type. The replacement part is Cat. No. ET10X43.

The new fuse is mounted on a terminal strip at the top corner of the signal board adjacent to the picture tube.



(over)

A SUBSCRIPTION PLAN PUBLICATION

MY CHASSIS PARTS LIST REVISION

Make the following revision to Page MY3-10 in the "Y" line Service Manual.

Page MY3-10 Under "COILS AND TRANSFORMERS"

Change the Catalog Number of T251 from ET77X71 to ET77X74.

SERVICE MANUAL PAGES

The Service Manual sheets which you have received should be filed at once as instructed below. Destroy all old sheets which have been superseded by new sheets.

Insert the following sheets in the "Y" line Service Manual.

AY CHASSIS	Supersedure sheet AY1-11.
LY CHASSIS	Supersedure sheets LY1-3 and LY1-5.
SY CHASSIS	Supersedure sheets SY1-1, SY1-3, SY1-5, SY1-7, SY2-1, SY2-3, SY2-11, SY4-1 and SY4-3.

Service Talk

FROM

TELEVISION RECEIVER PRODUCT SERVICE

ELECTRONICS PARK SYRACUSE, N. Y.

SEPTEMBER 1964 VOL.6, NO.9

NEW PERSONAL PORTABLE TV
-TRANSISTORIZED-

Once again General Electric leads the TV field with an all transistorized, American built, personal portable at a price below smaller screen imports.

The Model TR805 has a 9 inch (diagonal measurement) picture tube and weighs only 13 pounds. It is provided with a steel cabinet, covered with cushioned vinyl. Two power cords are included, one for operation from 120 volts AC line and the other for plugging into the cigar lighter of any car having a 12 volt negative ground electrical system.

Your TA Chassis Service Manual pages covering this new transistorized receiver are included in this mailing. To assist you in servicing this new product, several additional aids are included in the Service Manual. Please read the entire manual before attempting any service.

The Service Template, which is included in this mailing, is to be placed over the bottom of the etched circuit board and secured by the board mounting screws as indicated on the template. The individual elements of each transistor are shown and voltage readings may be made through the holes in the template without having to trace the location of a particular transistor element.

Your General Electric Television Receiver Distributor will be conducting service meetings on the TA Chassis in the near future. Be sure to contact him to learn the location and date of the service meeting nearest your location.

A SUBSCRIPTION PLAN PUBLICATION

SERVICE MANUAL PAGES

File the following pages in the "A" Line Service Manual. Destroy old sheets which have been superseded.

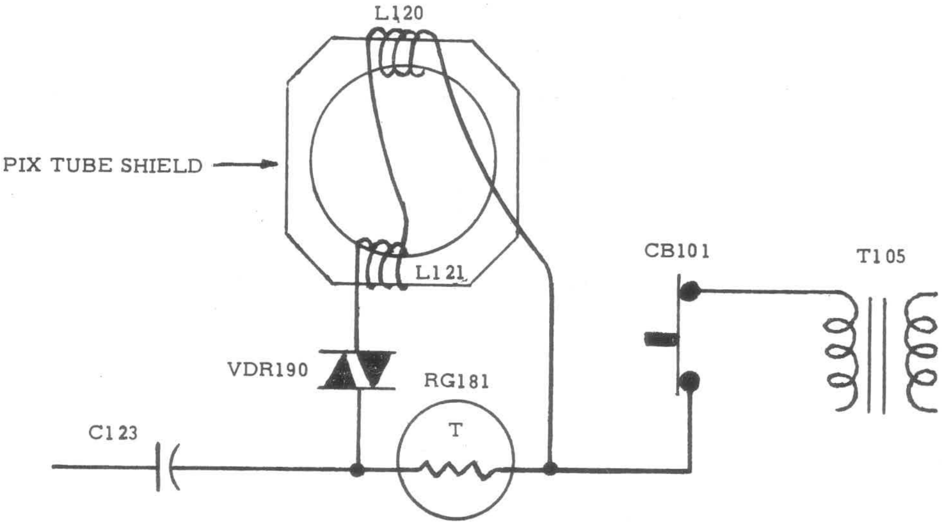
AA Chassis	Supersedure sheet AA4-7.
CA Chassis	Supersedure sheet CA3-1. File sheet CA3-23 after CA3-1.
DA Chassis	Supersedure sheet DA4-7.
TA Chassis	File the TA Tab Card and all TA sheets in numerical order after page SA3-8.

Service Talk
FROM
TELEVISION RECEIVER PRODUCT SERVICE
ELECTRONICS PARK SYRACUSE, N. Y.

OCTOBER 1964 VOL. 6, NO. 10

AUTOMATIC DEGAUSSING OF CA COLOR RECEIVERS

An automatic degaussing circuit is being incorporated into all CA color chassis (except Models M919A and M921A). The purpose of the circuit is to automatically demagnetize the aperture mask in the picture tube each time the receiver is turned on.



Two coils, L120 and L121, are assembled to the picture tube shield. One coil is at the top of the shield and the other at the bottom. The coils are connected so that the fields produced are in the same direction at any instant.

The voltage dependent resistor, VDR190, is made of a special carbon. It is a symmetrical (current flows equally in either direction) and non-linear device which changes its resistance instantaneously with any instantaneous change in applied voltage (resistance goes down with increased voltage). Although the VDR is a type of resistor, it has the characteristics of two diodes connected as shown by the symbol of VDR 190.

The thermistor, RG181, has a resistance of 120 ohms when cold and 2 ohms when hot.

A SUBSCRIPTION PLAN PUBLICATION

The circuit operates in the following manner. At the instant the receiver is turned on (from a cold start), the resistance of RG181 is high and 60V AC is present at the junction of L121 and VDR190. With 60V applied, the resistance of VDR190 is very low and approximately 2 amperes of current flows for an instant through L120, L121 and VDR190 to produce a maximum field in the coils and aperture mask.

At the same instant as the above, the current flowing through the thermistor, RG181, is causing RG181 to heat, thus lowering its resistance and the voltage applied to VDR190. The resistance of RG181 continues to reduce with increased heating until its resistance is 2 ohms. The voltage on VDR190 has now been reduced to approximately 1 volt and the current through it and coils L120, L121 is about 0.5 ma.

It takes about 20 seconds to go from a maximum field at 60 volts 2 amperes to a zero field at 1 volt 0.5 milliampere.

SERVICE MANUAL PAGES

Destroy all old sheets that have been superseded by new sheets. File the following pages in the "Y" Line Service Manual.

CY Chassis

Supersedure sheet CY2-5.

FY Chassis

Supersedure sheet FY2-3, FY2-5.

File the following pages in the "A" Line Service Manual.

EA Chassis

Supersedure sheets EA1-1, EA1-5. New sheet EA1-7 after Page EA1-6.

SA Chassis

Supersedure sheet SA1-1. File new sheets SA1-3, SA1-5, SA1-7 after Page SA1-2; SA4-1, SA4-3 after SA3-8.

TA Chassis

Supersedure sheets TA3-3, TA3-5, TA3-9, TA3-11.
File new sheets TA4-1, TA4-3 after Page TA3-12.

Service Talk

FROM
TELEVISION RECEIVER PRODUCT SERVICE
ELECTRONICS PARK SYRACUSE, N. Y.

NOVEMBER 1964 VOL.6, NO.11

GENERAL INFORMATION

CW, CX, CY, FY and CA COLOR CHASSIS

We have recently been advised of a peculiar type of problem which may be found in color receivers using any of the subject chassis.

The usual complaint is poor or incorrect color and the hue control will not operate properly. The screen controls appear to operate on a different gun; for instance the red screen control may operate the green or blue gun.

This problem is due to a magnetized aperture mask resulting from a near by lightening strike.

The remedy is to degauss the tube which will restore normal operation.

TA CHASSIS ACCESSORIES

Some rumors have been investigated recently that the TA chassis auto cigarette lighter cord does not fit some American cars.

These rumors are entirely false since as far as we are able to determine the TA plug will fit virtually every American twelve volt system.

However, there may be occasions when the receiver will fail to operate when plugged into some cars due to one of the following reasons:

1. Accumulation of dirt or ashes or corrosion in lighter receptacle causing poor or intermittent connection. (Clean out receptacle.)

2. Lighter wired to operate only when ignition switch is on.

3. Defect in wiring or receptacle. (Lighter will not work in this case.)

EA CHASSIS - HORIZONTAL OUTPUT TRANSFORMER

All EA Chassis built before Chassis Code EA439 were stamped with an incorrect Horizontal Output Transformer Catalog Number.

The transformer mounting bracket was incorrectly stamped ET77X81. The correct number is ET77X82 as listed in the Service Manual.

1965 SERVICE MANUAL SUBSCRIPTION PLAN

Now is the time to renew your subscription to the General Electric Factory Service Manual Plan for 1965. A renewal coupon, attached to the descriptive flyer, is enclosed for your convenience. Note the various types of equipment and features that will be covered in the 1965 Service Manuals and renew your subscription plan now!

SERVICE MANUAL PAGES

File the following pages in the "A" Line Service Manual in numerical order. Destroy old pages which have been superseded.

AA Chassis	Supersedure page AA1-3.
CA Chassis	Page CA1-7.
DA Chassis	Supersedure page DA1-1.
EA Chassis	Supersedure page EA1-5.
SA Chassis	Supersedure page SA1-1.

File the following pages in the "Y" Line Service Manual in numerical order. Destroy old pages which have been superseded.

LY Chassis	Supersedure pages LY1-1, LY1-3, LY1-5, LY2-1, LY2-5, LY2-15.
MY Chassis	Supersedure page MY1-5 and pages MY1-13, MY1-15, MY1-17, MY1-19, MY1-21, MY1-23, MY2-31 and MY2-33.

Service Talk

FROM
TELEVISION RECEIVER PRODUCT SERVICE
ELECTRONICS PARK SYRACUSE, N. Y.

DECEMBER 1964 VOL.6, NO.12

SAFETY TESTS - ANTENNA ISOLATION

Because of the increasing portability of TV receivers and their use on porches, patios and similar locations where dampness may exist, the prevention of any shock hazard becomes even more important than in the past.

We recommend that you advise your service men that, following ANY service, a safety check of the receiver should be made in accordance with the instructions contained in the service manual for the particular receiver.

As instructed in the safety test procedures, all exposed metal parts should be checked. Special emphasis should be placed on the checking of pole or loop antennas. These items are frequently adjusted by hand and maintenance of isolation is particularly important.

As you are aware, there are many variations in vendor design of tuners and different types of antenna isolation which, if not recognized, could lead to unsafe conditions.

For instance, in the DA, EA and SY Chassis, a portion of the VHF tuners have the antenna isolation network built into or mounted on the input assembly of the tuner rather than the more usual network external to the tuner. However, the majority of receivers do contain external isolation in addition to that built into the tuner.

Where external isolation is not present, the tuner isolation may be defeated and a hazardous condition may develop if the tuner isolation components become damaged or shorted out by accidental solder splashes or other careless servicing.

If it becomes necessary to replace a tuner, only the factory recommended replacement tuner should be used.

From these examples, we believe you will recognize the importance of establishing proper safety test practices.

SERVICE MANUAL PAGES

File the following pages in the "Y" Line Service Manual in numerical order. Destroy old pages which have been superseded.

AY Chassis	Supersedure page AY1-1.
BY Chassis	BY Tab and pages in numerical order after page LY4-1. Includes supersedure pages BY1-1, BY1-3, BY1-5, BY1-7, BY2-7, BY2-9 and BY3-5.
LY Chassis	Supersedure pages LY2-1, LY3-3 and LY3-5. Page LY2-1 was listed prematurely last month.
MY Chassis	Pages MY2-31 and MY2-33 which were listed prematurely last month.
SY Chassis	Supersedure pages SY1-1, SY1-3, SY1-5, SY1-7, SY3-1, SY4-3.

File the following pages in the "A" Line Service Manual in numerical order. Destroy old pages which have been superseded.

Foreword and Index	File pages 1 and 3 after the Index Tab.
AA Chassis	Pages AA2-13 and AA2-15.
DA Chassis	Pages DA2-17 and DA2-19.
EA Chassis	Supersedure pages EA2-5 and EA2-7.
TA Chassis	Supersedure pages TA3-5, TA3-9, TA3-11 and TA4-3.

HOLIDAY GREETINGS

The folks in Television Product Service wish you a very Merry Christmas and a Happy and Prosperous New Year.

Harry Wexler

P. D. Wexler
Manager - Product Service

Service Talk

FROM
TELEVISION RECEIVER PRODUCT SERVICE
ELECTRONICS PARK SYRACUSE, N. Y.

JANUARY 1965 VOL.7, NO.1

YOUR 1965 SERVICE MANUAL SUBSCRIPTION PLAN

Have you renewed your subscription to the General Electric Factory Service Manual Plan for 1965? If not, we urge you to fill out the flyer coupon which you received in your November mail and send it with your remittance to your General Electric Television Receiver Distributor. Do it today so that you will not miss any of the valuable material to come.

All 1965 subscriptions will include a loose-leaf binder for forthcoming "B" Line TV service manuals. The binder will be mailed to you in February since our new subscription mailing list will not be completed until mid-January.

"TRANSISTORS & TROUBLESHOOTING IN HOME ENTERTAINMENT EQUIPMENT"

Volume I of this three volume course is now off the press and being distributed. Volumes II and III are coming up fast. Have you signed up yet? If not, SIGN UP NOW! Contact your General Electric Distributor for details. Your investment and follow through will ensure your position in the electronic's service industry.

CLEANING CONTACTS ON TRANSISTORIZED VHF TUNER ET86X229

VHF tuner ET86X229 is used in Models TR803 and TR805 transistorized portable television receivers. This tuner may, under certain climatic conditions (seashore, fog, etc.) exhibit intermittent, weak, or no-signal reception due to film on the tuner bandswitch contacts.

To correct any of the above conditions, merely rotate the VHF selector switch about ten complete revolutions in both the clockwise and counterclockwise directions. This will wipe off the contacts and it will not be necessary to clean or lubricate them.

SERVICE MANUAL PAGES

File the following pages in the "Y" Line Service Manual in numerical order. Destroy old pages which have been superseded.

AY Chassis	Supersedure pages AY1-19, AY1-23, AY1-25, AY2-7, AY2-9, AY2-15 and AY3-5.
CY Chassis	Supersedure page CY2-5.
FY Chassis	Supersedure pages FY2-7 and FY2-9.
MY Chassis	Page MY1-25.

File the following pages in the "A" Line Service Manual in numerical order. Destroy old pages which have been superseded.

EA Chassis	Supersedure page EA1-7.
SA Chassis	Supersedure page SA1-1.
TA Chassis	Supersedure pages TA1-1, TA2-5, TA3-1, TA4-3 and pages TA4-5 and TA4-7.

HOT LIST

We have been notified that the following receivers are presumed to be stolen. If you should locate any, please contact the company listed.

MODEL	SERIAL NOS.	CONTACT
TR805	202202	McCarley Furniture Co. Columbus, Georgia
M111ASD	108968	
M113AVY	211235	
M113ARD	160237	
M206YTS	081631	
M403AVY	802731	
M205AVY	613499, 613577, 524900, 582761, 600797	
M111ASD	598152, 598019, 597980, 514718, 598159, 597987, 512874	Station WTVM Television Columbus, Georgia
PAM719AWD	970886	Floyd E. Drake Chief of Police Alameda, California

Service Talk

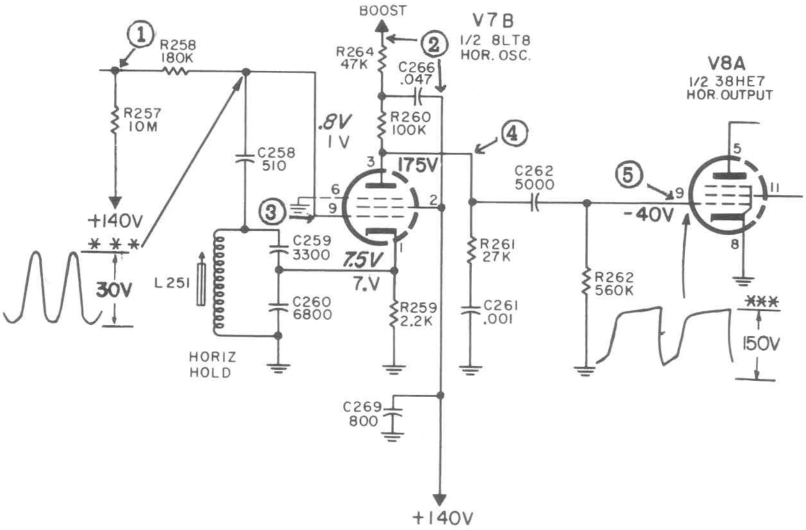
FROM
TELEVISION RECEIVER PRODUCT SERVICE
ELECTRONICS PARK SYRACUSE, N. Y.

MARCH 1965 VOL. 7, NO. 3

DB CHASSIS HORIZONTAL OSCILLATOR

The following procedure may be used by the service technician in checking the sine-wave horizontal oscillator of the DB Chassis while troubleshooting the horizontal-high voltage system. It may also be applied to other new G-E chassis incorporating the same type of horizontal circuitry.

The partial schematic diagram below shows the oscillator circuitry with circled numbers identifying areas referred to in the step-by-step procedure. In actual troubleshooting, the DB (or other chassis) main-chassis schematic diagram should be used, and common-sense troubleshooting practice followed; for example, in the event of a failure in the horizontal or high-voltage area, a preliminary visual inspection and a check of circuit voltages may furnish immediate clues to the trouble source.



①. Connect a jumper between chassis ground and the junction of R257-R258. If high voltage becomes operative as shown by the raster, it can be assumed that the difficulty is in the phase detector or another stage on that side of the oscillator. In this case, normal troubleshooting practices should be applied beginning with the phase detector output and working back.

②. If the oscillator remains suspect after Step 1, check DC voltages at the 8LT8 screen (Pin 2) and the boost end of R264. Voltage at both points should be approximately 140V without boost. If voltages are in this range, proceed to Step 3. (No voltage at the end of R264 indicates failure in the damper or flyback circuitry.)

③. Using an oscilloscope, check at the control grid (Pin 9) for a horizontal-frequency sine-wave indicating that the oscillator is functioning. If the waveform does not appear, or appears at considerably smaller amplitude than indicated on the schematic, troubleshoot the oscillator stage for possible tube or component failure. If the waveform appears normal, proceed to Step 4.

④. Connect the scope to the 8LT8 plate (Pin 3). If the scope does not show a trapezoidal waveform of approximately 100V amplitude, check for a short or open in the plate circuitry. Otherwise, go on to Step 5.

⑤. Connect the scope to the driver control grid (Pin 9 of the 38HE7). The display and approximate voltage reading should conform to that obtained at the plate of the 8LT8 in Step 4. If not, the coupling capacitor C262 may be at fault.

If the oscillator is operating and properly driving the horizontal output stage, a high-voltage failure indicates trouble--probably a tube or component failure--in the high voltage area itself.

DB CHASSIS HORIZONTAL HOLD

Adjustment of the horizontal hold is considerably simpler in the DB Chassis than in previous chassis using multivibrator horizontal circuitry. The set-up procedure follows:

With controls set for normal operation, short Test Point V (clipper grid) to chassis ground and adjust L251 for the point where the picture just "floats" horizontally across the screen. (Vertical roll during this operation may be corrected by slight readjustment of the vertical hold control.)

Service Talk

FROM
TELEVISION RECEIVER PRODUCT SERVICE
ELECTRONICS PARK SYRACUSE, N. Y.

APRIL 1965 VOL.7,NO.4

AA, AY CHASSIS - OPEN PICTURE TUBE FILAMENTS

A percentage of the 23DYP4 or 23FVP4 picture tubes which fail in the above chassis have been found to have open filaments. Investigation has shown the following cause.

As in the case with any type of electrostatic focus tube, occasional arcing occurs, mainly during the early life or break-in period. This arcing is normally discharged across the spark gap from G2 to ground and no harm results.

On the sweep board, there are a couple of locations in the copper pattern where the islands connected to G1 and G2 are spaced close to a B+ island. If a slight misregistration of the copper pattern occurs, the reduced spacing may allow an arc over to occur simultaneously with a discharge across the spark gap. If this should occur a heavy B+ current flows into G1 or G2 and follows the HV arc to the filament causing burnout.

This type of failure may be prevented by increasing the spacing of critical conductor points according to the following instructions.

We suggest you make these changes whenever an "open filament" picture tube failure has occurred in an AA or AY Chassis, to prevent a repetition of the failure. Chassis passing through your shop for other service should also be inspected for this condition.

AA receivers built after Chassis Date Code 504 have the circuit corrections incorporated.

AA Chassis - (See Illustration)

(Both early and late production boards)

1. The junction of R216 and the yellow wire to terminal 5 of

the yoke should be lifted from the copper island and reconnected in open space.

2. Increase the clearance between the following two copper islands.

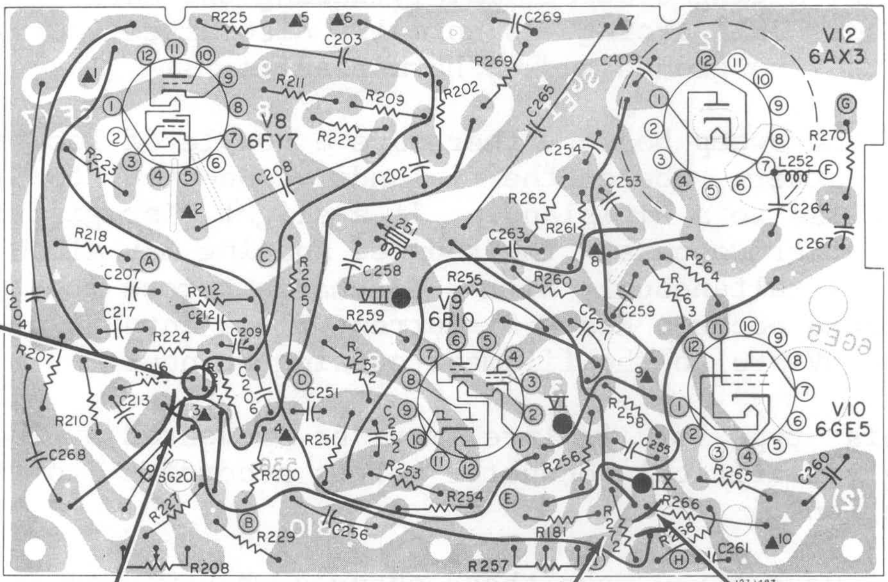
   a. Junction of spark gap and lead to pin 3 of CRT.
   b. Junction C213 and lead to R268.

Note: Use a stiff knife blade or G-E cutting tool ETR-3896. Score and remove the copper pattern and solder fillet to allow maximum clearance between the islands.

3. Increase clearance between the following two islands:

   a. B+ end of R266.
   b. Junction R268 and C272.

4. Change R272, 330K to an Allen-Bradley. The Allen-Bradley will have a smooth body surface.



LIFT

CHANGE TO ALLEN-BRADLEY

REMOVE COPPER ←AT AREAS INDICATED BY LINES→ REMOVE COPPER

AA SWEEP CIRCUIT BOARD COMPONENT VIEW

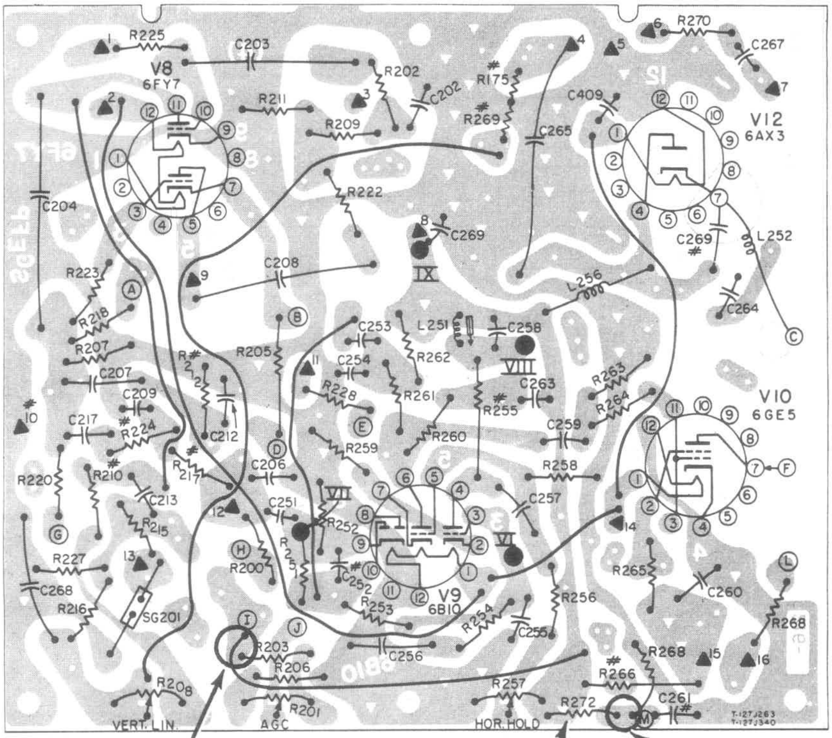
AY Chassis - (See Illustration)

1. Lift the junction of R203 and B+ lead from the island and reconnect. This clears the island of all connections.

2. Lift R272 and lead connecting to R268 above island and reconnect. This clears island of all connections.

3. Change R272, 470K to Allen-Bradley. The Allen-Bradley has a

smooth body surface.



LIFT CHANGE TO ALLEN-BRADLEY LIFT

AY SWEEP CIRCUIT BOARD COMPONENT VIEW

DB CHASSIS CLOCK REPLACEMENT

Removal of the clock assembly from receivers of the DB Chassis 415 model series can be facilitated by following this procedure.

Carefully clip or break the two tabs by which the assembly is clip-mounted to the plastic back plate. Remove the mounting clips, and use them to fasten the assembly to the remaining pair of mounting tabs during reassembly.

(The plastic back plate, which attaches to the die-cast front of the receiver, is equipped with a spare set of tabs for clock mounting--one tab at the top and another at the bottom diagonally opposite it.)

SERVICE MANUAL PAGES

File the following pages in the "B" Line Service Manual. Destroy old pages which have been superseded.

DB Chassis Supersedure sheets DB1-1, DB2-1, DB2-3 and sheets DB2-13, DB2-15 and DB3-7.

HOT LIST

We have been notified that the following receivers are presumed to be stolen. If you should locate any, please contact the company listed.

MODEL	SERIAL NOS.	CONTACT
TR805AEB	229622	Stephenson Electronic Service 1004 Commerce Liberty, Texas
M110YBG	077420	
R413AWD	803866	
R413ABG	690900	
PAM758AWD	387052	
M733AMP	858206	
M181YWD	517750	
M181AVY	068889	
RC4235	76065	
RC4652	251002	
M932YWD	538119	B. I. Bridgewater General Electric Company 8401 Carpenter Freeway Dallas, Texas
M962YWD	030335	
SAM332YWD	695809	

Contact Appliance Sales and Rental, Colombus, Georgia for the following receivers:

MODEL	SERIAL NOS.
M111ASD	333137, 159787, 231092, 230957, 230883, 230755, 231078, 230997, 230031, 121180, 231960, 230808, 230261, 231091.
M113AVY	114313
M205AVY	522287, 522107, 596626, 524177, 523885, 587568, 586530, 598931.
TR805AEB	202803, 200795, 200120, 244570, 244363, 244999
M501AVY	515582, 594603, 518381, 516951, 518261, 516813, 517197.

Service Talk

FROM
TELEVISION RECEIVER PRODUCT SERVICE
ELECTRONICS PARK SYRACUSE, N. Y.

MAY 1965 VOL.7, NO.5

TA CHASSIS - ZENER DIODE SERVICING AID

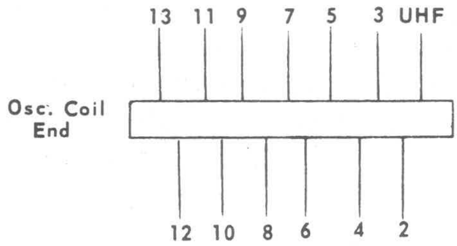
While servicing or testing a TA Chassis, a 130 Volt, ±10%, 10 watt Zener diode must always be connected across the emitter and collector of Q24, the horizontal output transistor. This is to prevent damage or failure of Q24 due to high amplitude transient pulses that may occur accidentally while testing the receiver. These pulses can occur due to any circuit interruption caused by accidentally shorting the anode lead to the chassis or shorting out the horizontal oscillator or buffer circuits, etc. When a pulse in excess of 130 volts is developed, the Zener diode will conduct and protect Q24.

Contact your General Electric Distributor for information on where the Zener diode may be obtained.

TA CHASSIS - VHF CHANNEL STRIP IDENTIFICATION

In the event that channel strips are removed from the VHF tuner in the TA Chassis, it will be necessary to identify each strip so that it may be placed in its proper position on the channel switch. Use the following method to assist you in identifying the strips.

A. Lay the strip down on the accompanying drawing with the oscillator winding on the left (this is the hollow end of the coil form) and the ends of the form aligned with the ends of the drawing.



A SUBSCRIPTION PLAN PUBLICATION

B. The black point dot on the strip will now lineup with one of the vertical lines extending above or below the drawing.

C. Read the channel number of the particular strip at the end of this vertical line.

CA CHASSIS - DESATURATED RED

It has been reported that a few CA Chassis have exhibited a desaturated Red shaded towards Magenta but Green and Blue appear to be OK. The trouble was caused by shorted turns in L703. Change L703 to correct the condition.

SERVICE MANUAL PAGES

File the following pages in the "A" Line Service Manual in numerical order. Destroy old pages which have been superseded.

AA Chassis	Sheet AA2-15 Supersedures
CA Chassis	Sheets CA3-21, CA3-23 Supersedures
DA Chassis	Sheet DA2-3 Supersedure
TA Chassis	Supersedure Sheets TA1-1, TA2-1, TA2-3, TA2-7, TA2-9 and TA3-7.

File the following pages in the "B" Line Service Manual.

DB Chassis	Sheets DB2-17, DB2-19.
SB Chassis	TAB card and Sheets SB1-1, SB2-1, SB2-3, SB3-1, SB3-3 and SB3-5.

APRIL SERVICE TALK ADDENDUM

Due to a change in planned clock mounting procedure in the DB Chassis 415 models, the item on clock replacement in the April Service Talk should be amended to read as follows:

(Paragraph 2) Carefully clip the ends of the four tabs by which the assembly is clip-mounted to the plastic back plate. This will simplify the task of removing the mounting clips without breaking the tabs. Should one tab be broken in the process, the three remaining tabs will still provide adequate support for the clock assembly.

(Delete Paragraph 3. All four tabs, instead of only two, now are used for clock mounting.)

Service Talk

FROM
TELEVISION RECEIVER PRODUCT SERVICE
ELECTRONICS PARK SYRACUSE, N. Y.

JUNE 1965 VOL.7, NO.6

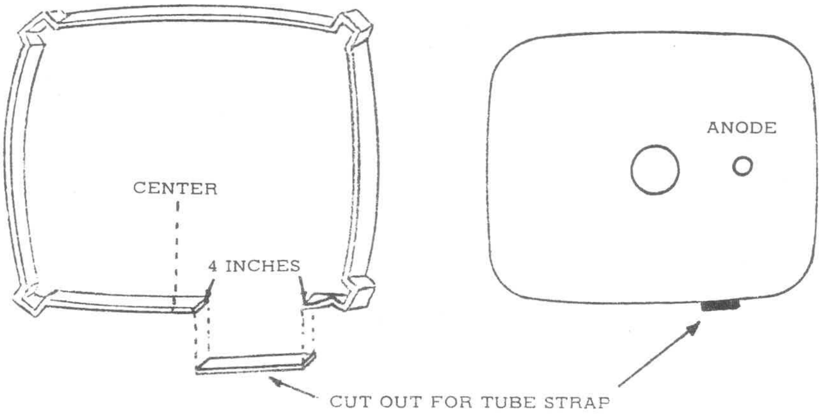
PICTURE TUBE REPLACEMENT IN QX, QY AND EARLY 16 INCH RECEIVERS.

The following 16 inch picture tubes, with bonded plastic implosion plates, will not be manufactured when current stocks are exhausted.

TUBE TYPE	MODELS
16ATP4	ALL QX
16AZP4	ALL QY
16BUP4	EARLY EA MODELS M501A, M505A

Replace the above tubes with Type 16BYP4. This tube is equipped with tension band implosion protection. Use of this tube requires a minor alteration to the plastic cabinet.

To alter the cabinet, remove approximately 4 inches of the plastic rib which surrounds the picture tube. This allows the clamp on the tension band to fit properly into the cabinet. The illustration below shows the area to be cut out and the dimension. The plastic can be easily snipped out with side cutters.



CUT OUT FOR TUBE STRAP

32-1700-65F

A SUBSCRIPTION PLAN PUBLICATION

SERVICE MANUAL PAGES

All pages in this issue of Plan E are for the "B" Line Service Manual. Included is complete service information for the AB Chassis and CB Chassis.

A new UHF section has been established in the "B" Line Manual since the UHF tuners for most chassis are the same.

File the following pages in the "B" Line Service Manual in alphabetical and numerical order. Destroy old pages which have been superseded.

AB Chassis	Sheets AB1-1 thru AB1-7, AB2-1 thru AB2-7, AB3-1 thru AB3-5 and AB4-1.
CB Chassis	Sheets CB1-1 thru CB1-3, CB2-1 thru CB2-9, CB3-1 thru thru CB3-27 and CB4-1.
DB Chassis	Supersedure sheet DB1-1 and sheets DB1-5, DB2-22 and DB2-23.
SB Chassis	Supersedure sheet SB1-1 and sheets SB1-3, SB2-5, SB2-7 and SB3-4A.
UHF Tuners	Sheets UHF1 and UHF 3. File these sheets and the UHF Tab after the SB Chassis information.

In addition to the UHF Tab, tabs are also included for the AB, CB and DB service information sections of the manual.

HOT LIST

We have been notified that the following receivers are presumed to be stolen. If you should locate any, please contact the company listed.

MODEL	SERIAL NO.	CONTACT
TR805AEB	494187	JAYCEE ELECTRIC CO. JOSEPH J. CAMPUS JR. 345 SCHOONMAKER AVE. MONESSEN, PENNA. 15062
M113AVY	138364	
SAM209AGL	397345	
M403AEB	745238	
M403AVY	834095	
M403AVY	834338	
M403AWD	779049	

Service Talk

FROM
TELEVISION RECEIVER PRODUCT SERVICE
ELECTRONICS PARK SYRACUSE, N. Y.

JULY 1965 VOL 7, NO. 7

TUNER CONTACT LUBRICANT-CAT. No. ET90X33

Your General Electric Distributor has available an approved contact lubricant. It has been specially selected by our factory for use on tuner assembly lines and we recommend its use to anyone doing tuner service.

Investigation has shown that some of the "squirt" and "spray" cleaner-lubes can damage tuner components. In use, ET90X33 Contact lube can be confined to the contact surfaces only since it has the consistency of a light grease. Also, because of its heavier viscosity, it remains effective far longer than liquid lubricants.

ET90X33 contact lube is the recommended lubricant for VHF tuner ET86X229 used in the transistorized TA Chassis. Most of the spray type lubricants will damage components in this tuner.

AA CHASSIS - HORIZONTAL WEAVE OR HUM

Some AA Receivers have exhibited a horizontal weaving, hum or intermittent streaking in the picture. These symptoms may result from a poor 6GE5 pin 12 filament ground return at the circuit board mounting screw. The filament return circuit for the 6GE5 depends entirely on this board mounting screw being tight. Even a tight ground screw may at times develop a poor connection and result in voltage drop.

We suggest that an additional #20 gauge ground wire be added between lug 12 of the 6GE5 socket and lug 12 of the 6B10 socket. This may be done more conveniently from the copper side of the board. An alternate method is to run a wire from lug 12 of the 6GE5 socket to the filament ground at the power transformer. Be sure and tighten all of the sweep and power supply board mounting screws, as an additional precaution.

ALL COLOR CHASSIS - DRIFT IN PURITY

As a result of a few field reports, a study has been conducted to determine the cause of this rare problem.

In brief, the problem appears as a drift in color purity after two or three hours of operation. Usually this condition results in a pink area on the right side of the tube.

The cause of this problem has been determined to be due to insufficient warm-up time prior to set up. Every receiver should be given 20-minute warm-up, with the back in place before making any purity adjustments to components mounted on the neck of the picture tube.

SERVICE MANUAL PAGES

File the following pages in the "B" Line Service Manual in numerical order.

DB Chassis Sheets DB1-7, DB1-9, DB2-25 and DB2-27.

HOT LIST

We have been notified that the following receivers are presumed to be stolen. If you should locate any, please contact:

OUTTEN BROS., INC.
U.S. 13 SOUTH DOVER BY-PASS
DOVER, DELAWARE, 19901

MODEL	SERIAL NO.	MODEL	SERIAL NO.
PAM109ABG	345510	M401BBG	602725
M505AVY	169966	SAM211AWD	399031
M113BRD	275528	M205AVY	401918
PAM119AVY	276490	M111ASD	327569
M505AEB	169734	RC4672	D72008
M205AVY	159420	(STEREO)	

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MODEL	SERIAL NO.	CONTACT
TR805AEB	501678	HAMILTON FARM BUREAU APPL. HAMILTON, MICH. 49419

Service Talk

FROM
TELEVISION RECEIVER PRODUCT SERVICE
ELECTRONICS PARK SYRACUSE, N. Y.

AUG-SEPT 1965 VOL 7, NO.8

SERVICING INTERMITTENTS

Historically, one of the most difficult types of TV or radio service problems is that of the thermal intermittent. Usually this is the type of intermittent which either appears or disappears with the normal temperature changes found in the equipment during warm-up.

A common means of locating this type of problem is by additional heat induced either by covering up the set or using a heat lamp. While this method will frequently locate the bad component, it may also damage others by excessive heat and thus bring on other failures.

Reducing the temperature of specific parts which are suspected is a much safer and usually more effective approach. This is easily and economically done by using some low cost refrigeration servicing items which are available from your General Electric TV distributor. Ask him for a 15-oz. can of Freon, Cat. No. WR97X84, and a No. 12505 Robinair valve, which attaches to the can.

By soldering a 6-inch length of small-diameter tubing (refrigeration capillary tube) to the #12505 valve outlet you will be able to reach just about any point in a TV chassis. With the Freon can inverted, open the valve slightly and aim the gas jet squarely on the suspected part. The sudden chilling will readily show up a thermal intermittent condition. If the particular part proves OK, try the next most likely one. You will find this approach a great time-saver and will avoid random and unnecessary changing of parts which always results from guesswork.

TRANSISTORIZED RECEIVERS

Does this type of equipment represent an added source of service income to you, or is it so unfamiliar that you pass up profitable service jobs?

32-1700-65H

A SUBSCRIPTION PLAN PUBLICATION

The new General Electric programmed instruction course "Transistors and Circuit Troubleshooting in Home Entertainment Equipment" is the ideal way to gain that extra training needed to handle modern transistorized receivers of all types. All three volumes are now available as a set. The price is a real bargain at $14.25 for the complete package including examinations which allow you to check on your own progress.

See your General Electric Television Receiver Distributor today and order your course.

SERVICE PUBLICATIONS

This month's Plan E mailing includes the complete HB and VB Chassis Service Information (10 sheets for each chassis including schematic foldouts) and the HB and VB Chassis tabs. Insert the HB tab and sheets in your "B" Line Manual following the last DB Chassis sheet; place the VB tab and sheets at the end of the manual, after the SB Chassis pages.

The following sheets are included:

HB CHASSIS
Tab

HB1-1
HB2-1
HB2-3
HB3-1
HB3-3
HB3-5
HB3-7
HB3-9
HB3-11
HB3-14

VB CHASSIS
Tab

VB1-1
VB1-3
VB2-1
VB2-3
VB3-1
VB3-3
VB3-5
VB3-7
VB4-1
VB4-3

Insert the following sheets in the "B" Line Service Manual. Destroy old sheets which have been superseded.

AB CHASSIS

AB1-9
AB1-11
AB2-9
AB2-11
AB2-13
AB2-15

DB CHASSIS

DB1-5 (Supersedure)

Insert the following sheets in the "A" Line Service Manual. Destroy old sheets which have been superseded.

DA CHASSIS

DA2-9 (Supersedure)
DA2-11 (Supersedure)

EA CHASSIS

EA2-9
EA2-11

Service Talk

FROM

TELEVISION RECEIVER PRODUCT SERVICE

ELECTRONICS PARK SYRACUSE, N. Y.

NOVEMBER 1965 VOL 7, NO.10

HORIZONTAL OSCILLATOR-MULTIVIBRATOR TYPE

Reports from the field indicate that the Stabilizer Coil is being adjusted to try and correct instability and off-frequency operation of the multivibrator type horizontal oscillators used in General Electric monochrome television receivers. This is, of course, an incorrect procedure since it does not correct the trouble and leaves the oscillator in an unstable condition, creating an unsatisfactory customer reaction.

The first step in troubleshooting the horizontal oscillator is to analyze and correct the trouble.

The second step is then to adjust the Stabilizer Coil and the Horizontal Hold Control using the correct set-up procedure as described in the Service Manual and repeated below.

The following set-up procedure must be used to correctly adjust the horizontal frequency in all monochrome chassis in the W, X and Y Chassis Lines and in the AB Chassis.

1. With the cabinet back removed and the power connected, tune the receiver to a weak signal and adjust controls for normal operation.
2. Ground Test Point VI (first triode grid).
3. Connect a 1000 ohm resistor from Test Point VIII to Test Point IX (in parallel with Stabilizer Coil).
4. Adjust the Horizontal Hold Control until the picture just "floats" back and forth across the screen. Leave the Horizontal Hold Control set in this position.
5. Remove the 1000 ohm resistor from Test Points VIII and IX. Adjust the Stabilizer Coil, turning the core towards the circuit board, until the picture again just "floats" across the screen. Leave the Stabilizer Coil adjustment in this position.

6. Remove the jumper wire from Test Point VI and ground and the picture should "lock in". Repeat the adjustment if the picture does not "lock".

Never adjust the Stabilizer Coil by itself to set the Horizontal frequency.

1966 SERVICE MANUAL SUBSCRIPTION PLAN

Now is the time to renew your subscription to the General Electric Factory Service Manual Plan for 1966. A renewal coupon, attached to the descriptive flyer, is enclosed for your convenience. Note the various types of equipment and features that will be covered in the 1966 Service Manuals and renew your subscription plan now!

SERVICE MANUAL PAGES

This month's Plan E Mailing includes the complete TB Chassis Service Manual and temporary Page DB3-4A which provides a schematic diagram and parts information for late production DB Chassis circuits. Also included is a "B" Line Index and an updated "A" Line Index.

File the following page in the "A" Line Service Manual and destroy the superseded page.

Page 3, "A" Line Index.

File the following pages in the "B" Line Service Manual. TB Chassis information should be filed after Page SB3-6.

Index Tab	At front of manual
Index	Page 3. (Pages 1 and 2 will be in a future issue.)
DB Chassis	Page DB3-4A. File after Page DB3-4.
TB Chassis	Tab and Pages TB1-1, TB2-1, TB2-3, TB2-5, TB3-1, TB3-3, TB3-5, TB3-7, TB3-9, TB3-11, TB4-1, TB4-3, TB4-5, TB4-7, TB4-9.

LATEST PARTS INFORMATION CHANGES

In the "B" Line Service Manual Pages CB3-26, CB3-28, CB3-30 and CB3-32 under "Miscellaneous," change:

Cat. No. ET34X175 to ET34X165 for V102, V103, V104, 12-Pin Socket

Cat. No. ET41X27 to ET41X47 for CRYSTAL-3.58 MC, Y701

Service Talk

FROM

TELEVISION RECEIVER PRODUCT SERVICE

ELECTRONICS PARK SYRACUSE, N. Y.

MARCH 1966 VOL. 8, NO. 3

CAPACITOR HEAT DAMAGE

When servicing a recently manufactured receiver, you should be alert to the possibility of damaging certain capacitor types due to excessive soldering iron heat.

Capacitors that exhibit this characteristic have the appearance of miniature silver colored paper capacitors with axial leads and are generally mounted away from the circuit board by long leads.

These capacitors are prone to heat damage because of the polystyrene dielectric and covering material which has a comparatively low melting temperature. You should therefore use a heat sink for removal or replacement and you should not allow a hot soldering iron to come in contact with the capacitor body.

A few typical circuit applications where these capacitors may be found are as follows:

1. C257 in the AB Chassis sine wave oscillator circuit.
2. C258 in the DB or HB Chassis sine wave oscillator circuit.
3. C303, C307 or C310 in the TA or TB Chassis audio circuitry.

The large silver colored capacitors, used for applications such as C176 & C152 in the AB Chassis, are mylar covered and are not categorized with the more fragile units outlined above. On the other hand, one of these units can also be damaged if a hot soldering iron is allowed to come in contact with the capacitor body, but heat sinking the leads is not required.

21" CB CHASSIS - GROUND OF H.V. TRANS. PULSE WINDING

We have received reports of unusual and erratic receiver performance due to poor contact on the ground connection of the pulse winding on the 21-inch CB H.V. transformer

A SUBSCRIPTION PLAN PUBLICATION

Since this pulse winding supplies the burst gate, several different effects are possible, when a poor ground exists. These may appear as any of the following:

1. Colored horizontal bars in the picture. - (May be intermittent.)
2. No Color.
3. Intermittent Color.
4. Greenish cast at lower portion of picture.
5. Neon light (N701) may be intermittent or not light at all.

CORRECTION:

1. Place a ground lug under the self-tapping screw which secures the H.V. transformer to the Chassis. This is located at the bottom and rear of the H.V. cage.

2. Install a short wire between this ground lug and the eyelet which secures the end of the pulse winding, and solder well at both ends.

SERVICE MANUAL PAGES

File the following pages in the Service Manual indicated. Destroy old pages which have been superseded.

A-Line Manual: Pages TA3-1, TA3-13.
B-Line Manual: Pages HB2-5, HB2-7, SB1-1, SB1-3, SB3-1, SB3-3, SB3-5, TB1-1, TB3-7.
C-Line Manual: Pages DC1-5, DC2-5, DC2-7, DC3-7.

OOPS!

We goofed in calling the February 1966 Service Talk Vol. 8, No. 1. Please change this to Vol. 8, No. 2.